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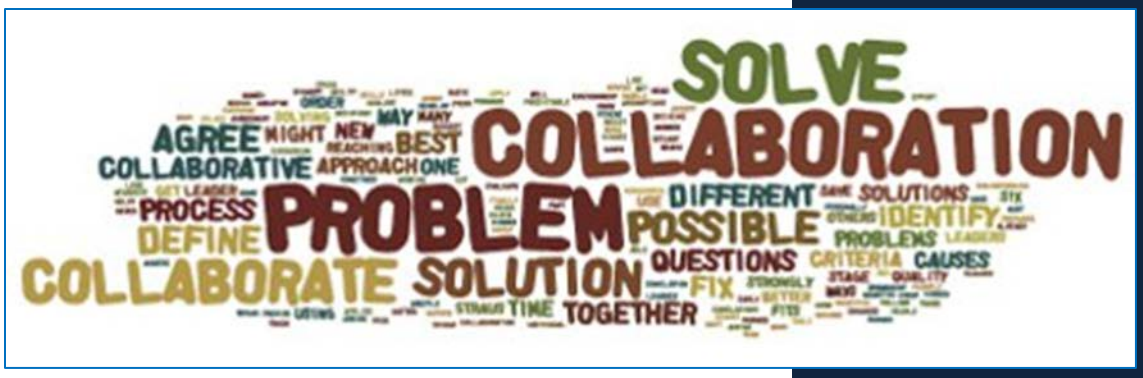
Supporting Positive School Culture Through Interpersonal Engagement



PHASE ONE REPORT

KINROSS COLLEGE

December 2015

ECU TEAM

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PROJECT INITIATED BY

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Kinross College

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Project Summary

The Industry Collaboration Project, 'Supporting Positive School Culture Through Interpersonal Engagement' is a joint project between Edith Cowan University, Hampton Senior High School, Kinross College and Mindarie Senior College. The project aims to empower school leaders to co-create, implement and evaluate professional learning programs that promote enhanced staff relationships. Supporting school leaders to improve staff relationships is important because staff (both teaching and school support) are key stakeholders in children's educational outcomes (Stringer, 2013). Ensuring school staff feel valued in their school community is also of ongoing importance, particularly as staff accountability and burnout rises in the teaching profession both within Australia and internationally (Gurd, 2013; Sterrett & Irizarry, 2015).

The project has two phases. Phase One included collecting and analysing baseline data across the three participant schools, as each school presents a different context, school community and organisational structure. This report outlines the findings from Phase One and the recommendations for the school based on these data.

Phase Two is the 'action' stage of the research project. In this phase, the researchers will work with each school's leadership team to decide on one or two key areas for improvement in the school staff culture. The areas for improvement will undergo some changes in Terms 1 and 2 of 2016, and data will be collected in the middle of 2016 to determine if the changes resulted in any improvement for the school staff and culture. Any changes will be co-led by the school and the researchers, with the emphasis being on creating sustainable practices that enhance the school community. It is anticipated that a cross-case analysis of the three schools' data will result in a list of key principles that are important to fostering a positive staff culture.

The uniqueness of the three case study schools involved provides an opportunity to explore school culture and relationships in diverse contexts, strengthening the generalisability of key principles developed, while also recognising school differences linked to other factors in school organisations.

Project Methodology

This project is guided by four research questions, investigated through participatory action research. The research questions being investigated are:

1. How can researchers and school leadership staff work collaboratively to sustain positive school communities?
2. What factors affect the development of positive staff relationship opportunities within their school context?
3. Does the development of positive staff relationship opportunities improve a sense school culture and community over time?
4. Does enhancing positive staff relationships increase teacher self-efficacy?

These questions are centred on both the process of collaboration between researchers and schools, and the school staff culture within each school. The inclusion of a collaborative approach between researchers and school leadership to effect change is crucial to the success of this project, as the importance of leadership staff in developing a positive school culture is frequently cited in the literature (Hoff Minckler, 2013; Mascall, Leithwood, Straus, & Sacks, 2008; Sterrett & Irizarry, 2015; Stringer, 2013).

Participatory Action Research

Participatory action research (PAR), "has a social and community orientation and an emphasis on research that contributes to emancipation or change in our society" (Creswell, 2014, p. 614). PAR goes beyond the traditional notion of action research, in which research is often limited to individual teachers solving classroom problems or small groups working to solve an internal issue within a school (Creswell, 2014). Instead PAR engages a community-based approach to solving problems or making changes within an organisation (Creswell, 2014; Kindon, Pain, & Kesby, 2007). This research project uses PAR as it involves the whole school staff community giving feedback to the school organisation and any changes made within the school. Instead of researchers giving recommendations from the perspective of an 'independent outsider', this research seeks to engage researchers and school staff in meaningful collaboration. Therefore, the approach supports active participation from the school to create sustainable change that is driven from within the school itself.

Two primary sources of data were collected to establish the baseline of school staff culture in each case study school. First, quantitative data were collected through two online surveys (one completed by all staff, and an additional survey for teaching staff). Second, leadership, teaching and school support staff participated in qualitative focus groups to further explain the areas evaluated by the whole school survey. Specific details of these data collection methods are outlined in the subsequent sections of this report.

Quantitative Evaluation of Current School Culture

Two online surveys were administered at Kinross College in Term 4, 2015. All staff were invited to participate in the surveys. The whole school survey was based on the School Organisational Health Questionnaire, established by the University of Melbourne (Hart, Wearing, Conn, Carter, & Dingle, 2000). This survey measures staff morale and 11 factors that affect morale:

1. Appraisal and recognition,
2. Curriculum coordination,
3. Effective discipline policy,
4. Excessive work demands,
5. Goal congruence,
6. Participative decision making,
7. Professional growth,
8. Professional interaction,
9. Role clarity,
10. Student orientation, and
11. Supportive leadership (Hart et al., 2000).

The researchers also hypothesised that staff culture will affect teachers' efficacy to teach, as goal congruence, collaboration and quality of interactions with other staff members have been shown to increase self-efficacy (Devos, Dupriez, & Paquay, 2012; Kelm & McIntosh, 2012). Therefore, the teaching staff were also invited to complete a teacher self-efficacy survey based on the Science Teaching Efficacy Belief Instrument (Riggs & Enochs, 1989). This survey was generalised so that it was applicable for all teachers; subsequently, the word 'science' was replaced with 'my subject area' throughout the questionnaire. Different subject versions of Science Teaching Efficacy Belief Instrument (Riggs & Enochs, 1989) have been validated since the original publication (Enochs, Smith, & Huinker, 2000; Roberts & Henson, 2000); however, a generalised version of the questionnaire has not yet been created. This research will determine the validity of the measurement, as well as report any significant correlation between teacher efficacy and school staff culture.

Qualitative Evaluation Using Focus Groups

After the survey data were collected, focus groups were conducted with:

1. The leadership team,
2. Teaching staff, and
3. School support staff.

Participants in these focus groups were self-selecting, having registered an expression of interest when invited to complete the survey component of the project. The leadership team focus group was conducted on the school grounds, as this team were leading the

project in the school and had agreed to confidentiality ethics requirements. The teaching staff and school support staff were taken off school grounds for their focus groups, as these staff were assured anonymity due to the sensitive nature of school culture discussion and adherence to ethics requirements, as per the National Statement on Ethical Conduct in Human Research (National Health and Medical Research Council, The Australian Research Council, & The Australian Vice-Chancellors' Committee, 2007).

Each focus group interview was audio recorded and then transcribed by an independent organisation. The researchers conducted a thematic analysis of the transcripts, combining the data for all three focus groups, until a schema of common themes emerged from the data.

Phase One Findings

The Phase One findings represent the baseline data that will used to determine any action to be taken in the school. The presentation of the quantitative findings are organised by the participant demographic information, then the 12 factors measured in the School Organisational Health Questionnaire (Hart et al., 2000), and lastly, the initial indications of teacher efficacy from the Teaching Efficacy Belief Instrument. The qualitative data were used to expand on and explain the findings from the School Organisational Health Questionnaire, and therefore, the qualitative thematic analysis is presented alongside each scale of the questionnaire.

Participant Demographic Information

A total of 41% of school staff completed the whole school questionnaire. Within the sample, 17.9% identified themselves as management team staff, 71.4% identified as teaching staff and 10.7% identified themselves as school support staff. These percentages can be compared to the total school population to determine what percentage of the school population was represented in each sample group. Both the management team and teaching staff groups had over 60% completion of the questionnaire. The school support staff are underrepresented in this sample, with approximately 10% of their total population opting to complete the questionnaire.

Overall, 57% of the participants identified themselves as female, and 35% identified as male. The remaining staff did not wish to disclose their gender. A range of age groups were represented in this questionnaire sample, as shown in Figure 1 (overleaf).

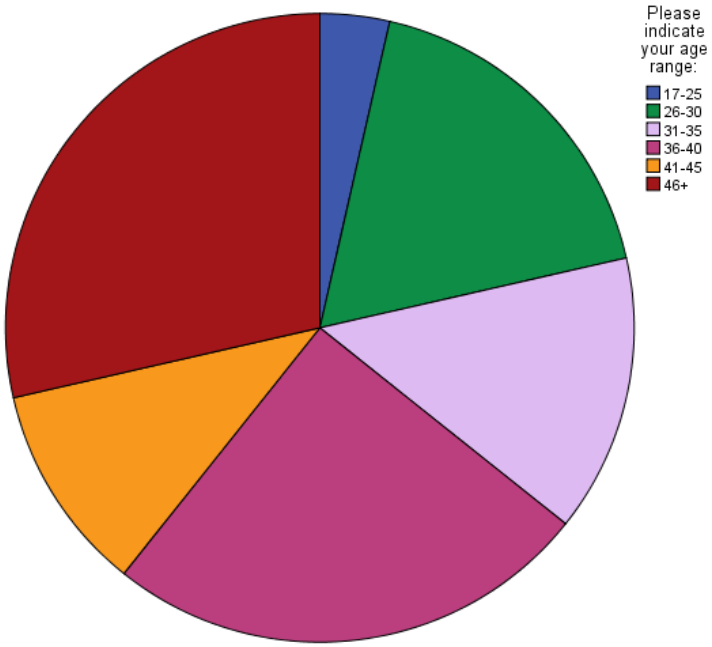

Figure 1. **Pie chart showing breakdown of staff age ranges for pre-test School Organisational Health Questionnaire.**

The majority of the sample identified as 46+ years of age, with the 36-40 years group also well represented. Collectively, these groups account for 53.6% of the questionnaire sample. Only 3.6% of the sample identified as being between 17 and 25 years of age. The 26-30 years category represented 17.9% of staff, while the 31-35 years category was selected by 14.3% of staff. The remaining category (41-45 years) accounts for 10.7% of the questionnaire sample.

School Organisational Health Questionnaire

The School Organisational Health Questionnaire (SOHQ) measures morale and 11 indicators of morale in the school culture (Hart et al., 2000). The data collected from the whole school staff were initially analysed for normality of distribution and reliability. Any items that were negatively worded (e.g., There is no time for teachers to relax in this school) were reverse coded, so that a higher score indicated a higher level of school health and positive morale. Of the 12 scales (morale and the remaining 11 factors), only eight returned reliability scores ($\alpha < .70$) that allowed for further analyses to be conducted. Subsequently, the following factors were used in the analyses for this sample:

1. Morale ($\alpha = .78$),
2. Appraisal and recognition ($\alpha = .78$),
3. Curriculum coordination ($\alpha = .81$),
4. Excessive work demands ($\alpha = .81$),
5. Goal congruence ($\alpha = .72$),
6. Participative decision making ($\alpha = .80$),

7. Professional growth (α = .87), and
8. Supportive leadership (α = .80).

Each of these eight scales were measured through either four or five items. The data presented below are based on scaled aggregated scores so that all of the scales are comparable.

As exploratory factor analyses had already been computed for the questionnaire, a confirmatory factor analysis was used to build a model for how these factors were interacting with each other based on correlations calculated using Pearson's *R* and, in some cases, Spearman's *rho* (which was used for correlations that included the curriculum coordination and supportive leadership factors, as these factors were not normally distributed). While eight factors returned reliable results, excessive work demands did not show any significant correlation with the other seven factors, and was subsequently excluded from the path diagram model construction.

Figure 2, below, shows the path diagram for these data. The model constructed is a relatively good fit, although some fit statistics were compromised due to the small sample size. A larger sample would most likely yield a more robust model. The current model returned reasonable goodness-of-fit statistics, CFI = .924, TLI = .894 and χ^2/df = 1.291. The Root Mean Square Error of Approximation returned a poor result (.104); however, this is most likely due to the small sample size in comparison to the number of factors being entered into the model. The final model shows the best fit for these data and displays the statistical interactions between the factors from the School Organisational Health Questionnaire specific to the Kinross College context.

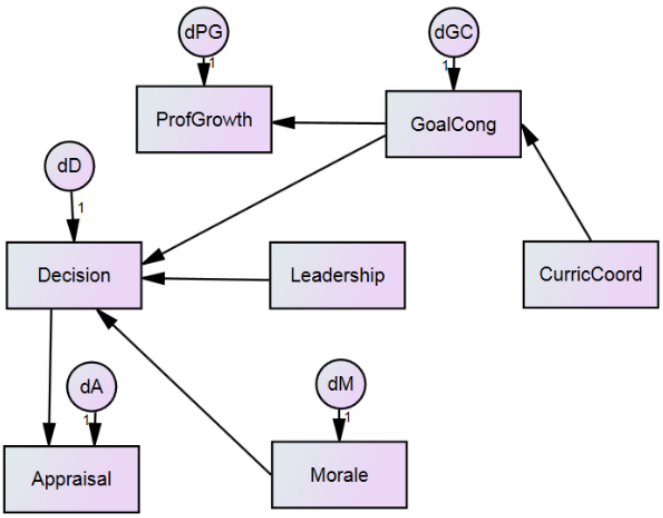

Figure 2. **Path diagram of related factors from the School Organisational Health Questionnaire.** *ProfGrowth = Professional Growth, GoalCong = Goal Congruence, Decision = Participative Decision Making, Leadership = Supportive Leadership, CurricCoord = Curriculum Coordination, Appraisal = Appraisal and Recognition, Morale = Morale scale, d = delta (variance of each factor)*

Figure 2 shows the pathways connecting the factors in the model. The direction of the arrows indicate the regression pathway, or the effect, of one factor on the other factor/s in the model. Table 1, overleaf, shows the regression weights, which ranged from a medium effect ($r < .3$) to a large effect ($r < .5$) for the pathways. However, it is important to note that the label of medium or large effect size is an interpretive indication rather than, "as iron-clad criteria without reference to the measurements taken, the study design, or the practical or clinical importance of the findings" (Durlack, 2009, p. 922). Nevertheless, the effect sizes displayed in this model have construct validity to the original questionnaire and within the educational context (Hart et al., 2000; Hoff Minckler, 2013; Sterrett & Irizarry, 2015; Stringer, 2013; Watterston & Caldwell, 2011).

Table 1. ***Regression weight estimates for Kinross College pre-test model.***

Pathway			Regression Weight	Standard Error	Significance Level
Goal Congruence	<---	Curriculum Coordination	.331	.132	.012
Decision Making	<---	Supportive Leadership	.341	.086	***
Decision Making	<---	Goal Congruence	.638	.124	***
Decision Making	<---	Morale	.367	.127	.004
Appraisal	<---	Decision Making	.516	.181	.004
Professional Growth	<---	Goal Congruence	.805	.227	***

*** denotes significance at the 0.001 level (two-tailed)

Morale

The morale scale included the following items:

1. There is good team spirit in this school;
2. The morale in this school is high;
3. Teachers go about their work with enthusiasm;
4. Teachers take pride in this school, and
5. There is a lot of energy in this school.

Overall, staff morale at the school is low. Aggregated data based on the five morale questionnaire items shows that 46.4% of staff disagreed with the statements about having a positive school morale (Figure 3, overleaf). A minority of staff (3.6%) strongly disagreed with

the statements, while a considerable percentage of the sample (39.3%) indicated their indecision about the current school morale through selecting 'neither agree nor disagree' to the statements offered. Only 10.7% of staff felt that morale was positive, shown by their agreement with the above statements.

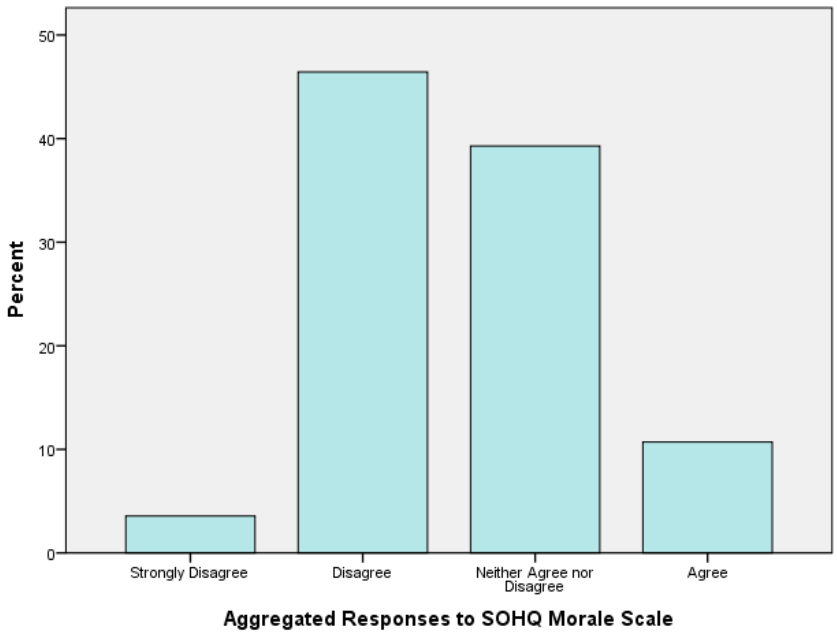

Figure 3. ***Staff aggregated responses to the items in the Morale scale of the SOHQ.***

The focus group data also suggested that morale was a key issue for the school culture. The term 'fragmented' was often repeated among the focus group participants. Key factors affecting morale included socialisation, professional growth and equity within the school community. The staffroom was a key issue for all participants, "the staffroom is a problem as well. It fragments everybody … having five different staffrooms." The "mixture of primary-trained staff and secondary-trained" also contributed to a sense of fragmentation, as these staff members often did not get opportunities to interact. The lack of social committee presence in the school in 2015 also lowered morale, with one staff member stating, "Social functions … there's been none this year … That's pretty poor." The construction of one staffroom and an active social committee were resolutions suggested by the focus groups in order to boost staff morale.

Professional growth was another key indicator for low morale. While professional growth is a separate scale on the SOHQ, retention of and opportunities for staff were key topics when discussing morale. The focus groups identified that there is significant transiency of staff out of the school and also between departments. Participants acknowledged that recently there had been significant staff turnover in the school due to personal factors, as well as other employment. However, a key issue in terms of transiency was the rate of staff moving between subject departments in the school. The focus group staff members stated that, "…

there's lots of people [teaching across various subject departments] … so there are not many people who stay stable [in one department]."

Equity was also a key issue for morale, particularly linked to professional growth within the school. Staff felt as though there could be greater opportunities for internal promotion, "… people aren't treated equally. It's very inequitable … and often there's a lack of communication with a lot of things." School-wide communication, especially in relation to the delegation of leadership roles, was an issue recognised across all of the focus groups.

The management team did cite potential resolutions to some of these concerns, stating that 2016 could improve morale through the construction of the staffroom and increased social activities:

> We haven't had an overly active social committee this year, and then perhaps with the building program next year and a dedicated staffroom … maybe that'll become a little bit more of a hub of activity.

Appraisal and Recognition

The appraisal and recognition scale included the following items:

1. I am regularly given feedback on how I am performing in my role;
2. I am happy with the quality of feedback I receive on my work performance;
3. There is a structure and ongoing process that provides feedback on my work performance, and
4. I have the opportunity to discuss and receive feedback on my work performance.

The aggregated data show that most staff responded ambivalently or negatively to the statements for the appraisal and recognition scale. 'Neither agree nor disagree' was the most frequently selected category, with 39.3% of participants selecting this, although it was very closely followed by the 'disagree' category (35.7%). Only 21.4% of participants felt that their work was being appropriately appraised and that they received recognition for positive work outcomes.

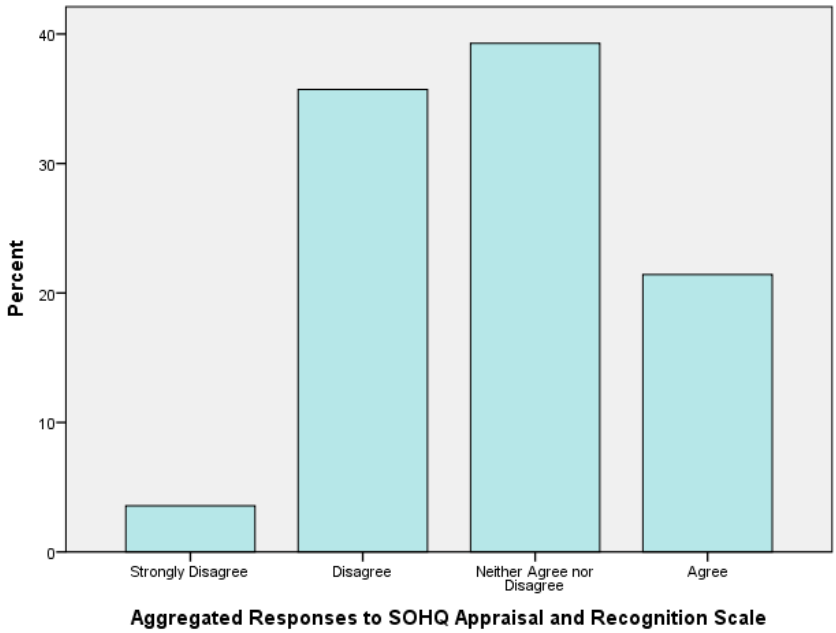

Figure 4. ***Staff aggregated responses to the items in the Appraisal and Recognition scale of the SOHQ.***

The focus group feedback suggested that staff appraisal is an informal process, largely driven by verbal discussion between staff members. The staff acknowledged that, "there's mandated processes through performance management"; however, in reality the staff stated that appraisal was "verbal conversation." Teachers specifically acknowledged the role of students in prompting reflective practice, "… my only feedback is from the students … I appraise myself all the time." The focus groups determined that appraisal was a key area that could be improved and facilitate professional growth. One staff member stated, "I don't see [any struggling staff] getting the skills they need … They'll find another solution, such as moving staff members to different roles … that won't help that person's skills to develop."

All of the focus groups noted that the 'Friday morning tea mug' was a key form of recognition for positive staff support. They explained how the staff, "… pass on a mug filled with some chocolate bars or something that people might like, and we nominate a person on the staff to receive that." Aside from the mug, the focus groups all stated that recognition for good work was largely verbal, such as announcements at morning tea or staff briefings, or written in whole-staff emails.

Curriculum Coordination

The curriculum coordination scale included the following items:

1. There is sufficient contact between different sections of the school in curriculum planning;
2. There is effective coordination of the curriculum in this school;

3. Teachers consult with each other about their teaching and curriculum, and
4. Teachers consult with Heads of Department about their teaching.

Overall, the participants were positive about the level of curriculum coordination in the school. While 42.9% of the staff neither agreed nor disagreed with the statements about curriculum coordination; 25% agreed with the statements and 14.3% strongly agreed with the positive and effective coordination of curriculum. The remaining 17.9% were unhappy with the current contact between staff regarding teaching and curriculum.

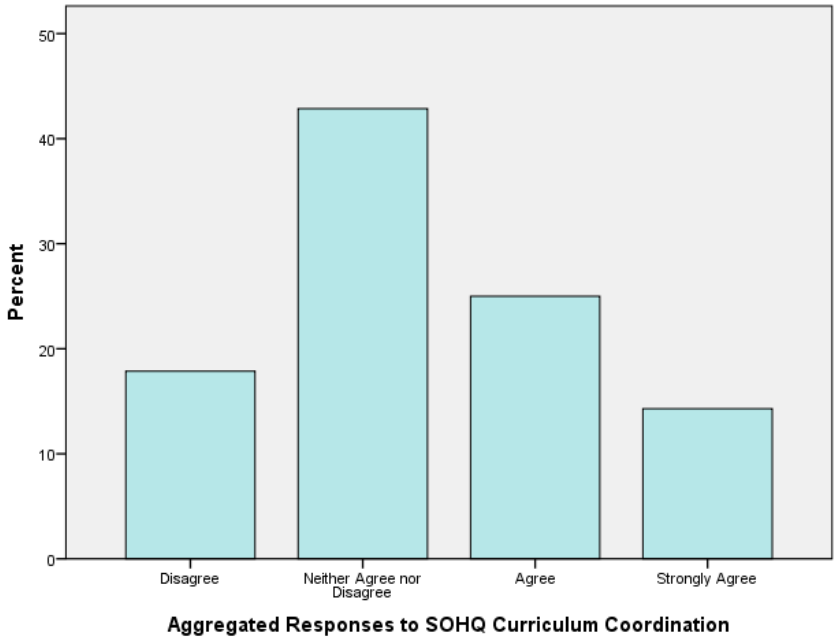

Figure 5. ***Staff aggregated responses to the items in the Curriculum Coordination scale of the SOHQ.***

The focus group participants stated that there was good collaboration within subject departments, but less collaboration between departments. Like with the appraisal and recognition scale, collaboration was seen as an informal process, "You talk to the person next to you if you want to." During the focus groups the school was experiencing the first administration of examinations for their students and the staff shared how they collaborated through this new process, "[for example] we've come up with a way of evenly distributing the marking load." Between departments there was less collaboration; however, the participants explained that one cause could be, "because you've got so many people spread across so many different departments."

In terms of whole-school collaboration and planning, the focus group participants were generally less optimistic. Some staff stated that committees could be more democratically organised to facilitate better collaboration, "I joined one of those committees … but if I can't get to that meeting [because of other workload] you get an email telling you the outcomes … So, you join committees but can't actually get a say." Yet, when it came to excursions or

larger events, the staff were optimistic about their collaboration leading to positive outcomes:

> On certain events it is massive. We've got the beach carnival coming up … Those type of events all of the staff work together to have a good day. Some of the best days of the year are carnivals and things like that.

Excessive Work Demands

The excessive work demands scale included the following items:

1. Teachers are overloaded with work in this school;
2. There is too much expected of teachers in this school;
3. There is constant pressure for teachers to keep working, and
4. There is no time for teachers to relax in this school.

The participants were generally satisfied with their current workload, as they disagreed with having 'excessive' work demands at the school. While 50% selected 'neither agree nor disagree', 25% disagreed with having excessive pressure and 14.3% strongly disagreed with the statements. A minority of 10.7% agreed with the statements, indicating that they did feel that there were excessive demands and pressure on teachers in the school.

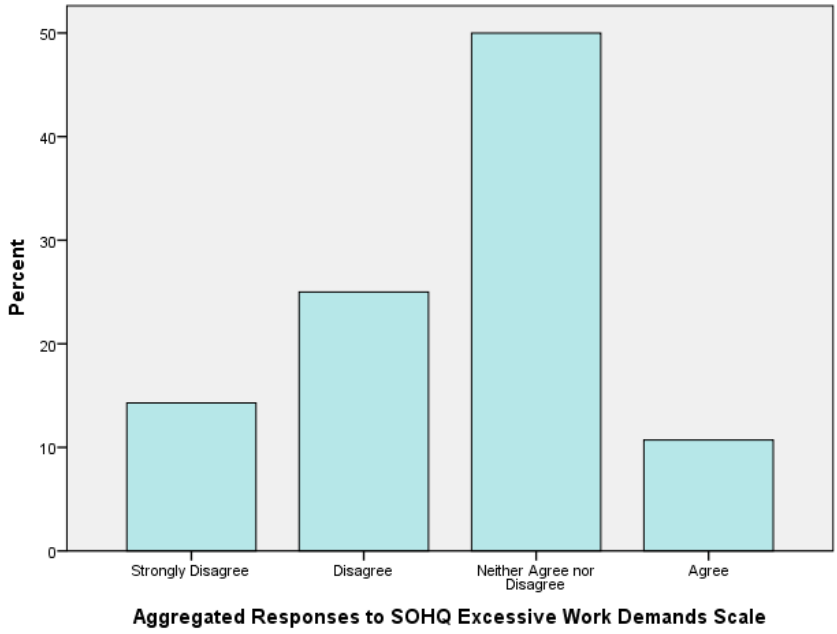

Figure 6. ***Staff aggregated responses to the items in the Excessive Work Demands scale of the SOHQ.***

Similar to the quantitative findings, the focus groups explained how their workload is a result of the larger government Department of Education mandates, as opposed to excessive demands from within their school. All of the focus groups stated that:

> The expectation coming from the system level [Department of Education WA] is very high and that we have no choice but let it filter down and obviously we all get lumped with lots of things … that plays a huge part in staff morale.

As an Independent Public School, there have also been "a lot of [support] tasks have become decentralised … that are now done at the school level whereas they were done previously at district office or in central." These support tasks included things such as, "their pay, their recruiting, [and] a whole range of risk management processes." Furthermore, risk management included the extra emotional support required of teachers in their conduct with students, "… there are so many students with a range of really serious social and emotional, psycho-emotional aspects."

Goal Congruence

The goal congruence scale included the following items:

1. There is agreement in the teaching philosophy of this school;
2. The staff are committed to the school's goals;
3. The school has a clearly stated set of objectives and goals;
4. My personal goals are in agreement with the goals of the school, and
5. There are forums in this school where I can express my views and opinions.

The staff were marginally positive about their level of congruence with the school's goals. Like with the previous scales, most of the staff participants neither agreed nor disagreed with the statements about goal congruence. A total of 32.2% of the sample were positive, indicating a good level of congruence with the school's goals (28.6% agreed and 3.6% strongly agreed). The remaining participants (21.4%) disagreed with the statements, indicating disparity between the school's goals and staff/personal commitment to these goals.

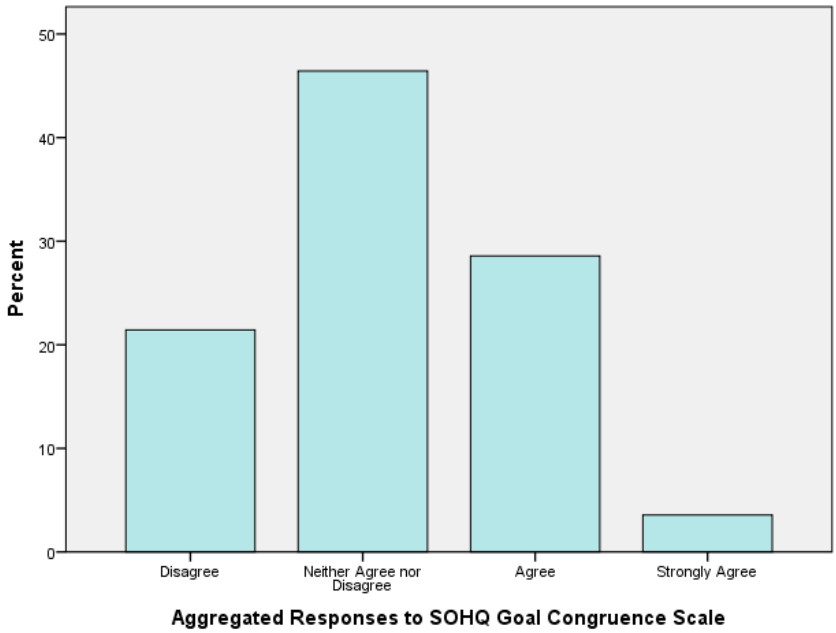

Figure 7. ***Staff aggregated responses to the items in the Goal Congruence scale of the SOHQ.***

The focus groups were far less optimistic about goal congruence in the school, when compared to the findings of the SOHQ. The focus group participants consistently stated that committees did not appear to be facilitating goal congruence through democratic decision making, "[because] for the most part they pay lip service. It's admin [who makes decisions]." Some staff did not feel that they had the opportunity to be included in creating goals for the school, "The problem is at our staff meetings, we don't actually have a chance to voice our concerns … People just talk at you or show you something and there's no chance for general business." The participants then reflected on how this approach impacted the implementation of policies and procedures to meet school goals:

> When staff morale is low … it all becomes too much [to implement school policies] and they just turn a blind eye … People just do what they want to do.

Importantly, the focus group staff noted the need for different goals at different levels of the school community, such as whole-school goals as well as team and department goals. One staff member stated, "There might be a mission at school level, but when you come down to thinking about it at team level there's some questions to be asked."

Participative Decision Making

The participative decision making scale included the following items:

1. I am happy with the decision making processes used in this school;
2. There is opportunity for staff to participate in school policy and decision making;
3. There are forums in this school where I can express my views and opinions, and
4. Teachers are frequently asked to participate in decisions concerning administrative policies and procedures in this school.

Overall, the staff responded negatively to the participative decision-making scale. A total of 56.2% of staff participants did not feel that decision making in the school was a democratic process, with 14.3% strongly disagreeing with the statements and a further 42.9% disagreeing with the statements about decision making. Only 14.3% agreed that decision making in the school was a collaborative process where staff could participate and give feedback on any policies and procedures. The remaining 28.6% of staff neither agreed nor disagreed with the statements.

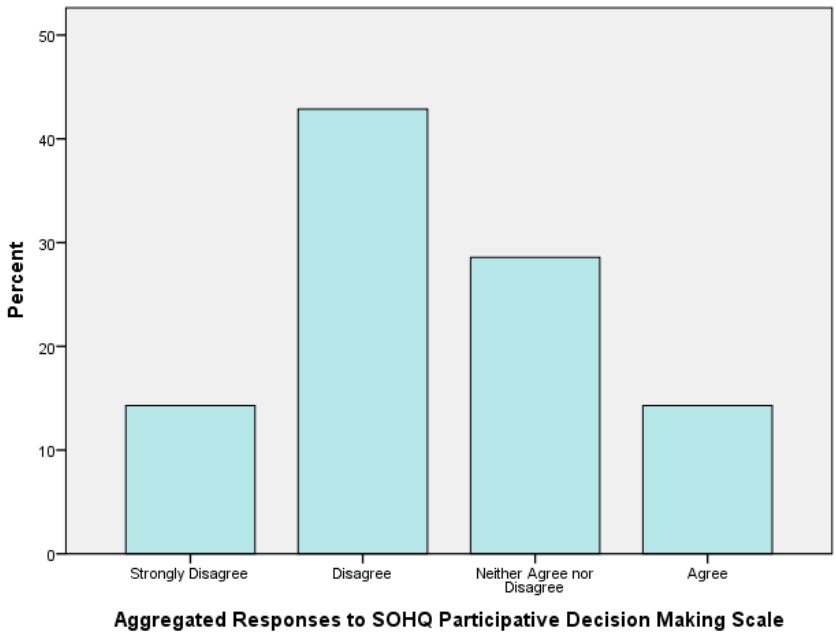

Figure 8. ***Staff aggregated responses to the items in the Participative Decision Making scale of the SOHQ.***

Participative decision making was also a concern of the focus group participants. Many of the participants felt that decision making was not in fact, "a process. It just gets made and then we're told." They stated the formal decision making process of the school:

> Ideas are floated at an executive meeting … Once ideas are thought through a little bit more then we'll take that to the management meeting

> and that includes all Heads of Departments … Then it might go out to a whole staff meeting for some consultation.

Many of the participants felt that this process could sometimes lead to, "frustration … because not enough people are often consulted." They also felt that "sometimes decisions are already made and it's a process of false consultation."

A positive reflection was the new approach to giving feedback to the Principal: "The Principal's door is always open … it's a different way of operating to what we're used to [with previous Principals]." This could be due to the more open communication method explained by the Principal, "[for example with the TAG mentor group idea, I said] 'this is where I'd like to go and why I'd like to do it' … then probably most staff meetings since we've actually had a chat about it."

Professional Growth

The professional growth scale included the following items:

1. Others in the school take an active interest in my career development and professional growth;
2. I am encouraged to pursue further professional development;
3. The professional development planning in the school takes into account my individual needs and interests;
4. There are opportunities in this school for developing new skills, and
5. It is not difficult to gain access to in-service courses.

The professional growth scores were also negative, indicating that staff did not feel the current professional development opportunities and processes actively facilitated their growth. Again, the most frequently selected response category was 'neither agree nor disagree', which was selected by 39.3% of the participants. Only 10.7% of the staff agreed that they were encouraged and had opportunities to access professional development, while 28.6% disagreed with the statements and 21.4% strongly disagreed (a total of 50% disagreement).

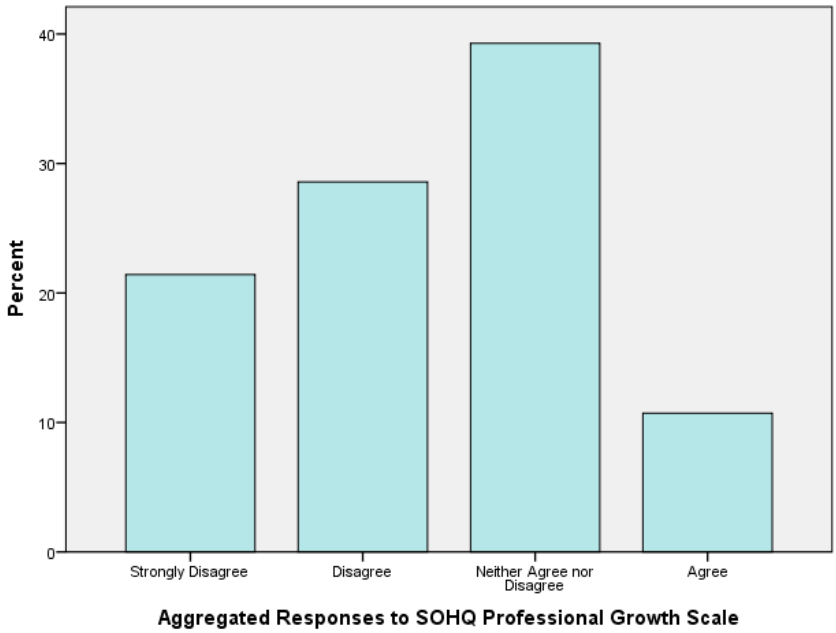

Figure 9. ***Staff aggregated responses to the items in the Professional Growth scale of the SOHQ.***

Professional growth was a key topic of the focus groups. The participants felt there was no longer a merit selection system for internal promotion, "… it's not open to the staff to put their hand up and say 'I'm interested'. Someone will just get tapped on the shoulder." This approach to promotion was seen as 'favouritism'. The limited opportunities for internal promotion also compounded their anxiety about future employment prospects, as "… it's very hard to promote out to another school because teachers don't have that experience teaching the upper school levels." The participants felt strongly about the positive impact that recognition through professional opportunities could have on staff morale:

> There are teachers who really care about the kids and care about their learning area, but … you need to acknowledge them, and you need to be able to give them the space to grow. You've got a lot of hard-working people doing the right thing and just constantly getting looked over for things that they definitely should be considered for.

In terms of professional development [PD], some staff members were concerned about fulfilling registration requirements due to limited opportunities to undertake professional development courses. The staff acknowledged that the school has put, "a lot of PD … into explicit teaching ... and done on Saturdays as well." The focus group participants expressed concern at teachers, "leaving their students with a relief teacher" and also with the process for PD approval. One example was a staff member not being able to register in time for a PD course due to waiting for the necessary approval. Other causes for not approving PD included staffing limitations or budget cuts to the PD funding. The management team

suggested that, “the ideal thing would be to have a PD committee. But it’s just another thing that staff have to do”, indicating a concern about staff members’ existing workloads.

Supportive Leadership

The supportive leadership scale included the following items:

1. There is support from the administration in this school,
2. There is good communication between teachers and the administration in this school,
3. The administration in this school can be relied upon when things get tough, and
4. I am able to approach the administration in this school to discuss concerns or grievances.

Like the professional growth scale, 50% of the staff responded negatively to the statements in the supportive leadership scale. The aggregated data show that 14.3% strongly disagree with the statements, while another 35.7% disagreed. The remaining staff were equally divided between the ‘neither agree nor disagree’ and ‘agree’ categories, with 25% of staff selecting each category overall.

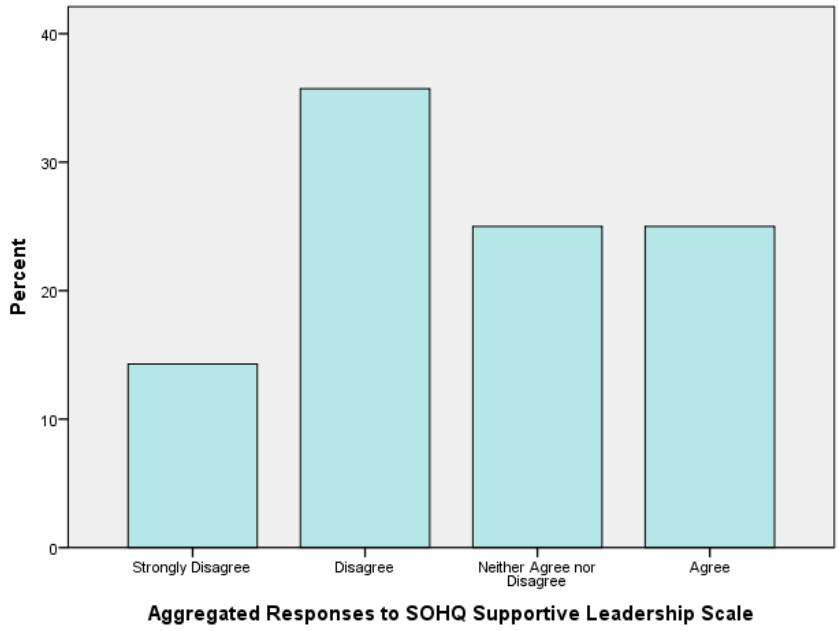

Figure 10. ***Staff aggregated responses to the items in the Supportive Leadership scale of the SOHQ.***

The focus groups mostly linked their perceptions of leadership back to their discussions about goal congruence and participative decision making. Many of the staff members stated that, “developing [community] is left to the individual person to control … leadership are

busy on the phone, doing something else." The participants reflected on the need for leadership to support and encourage social activities for staff:

> They've lost some trust … Friday morning tea … that is a social thing … but the executive keep turning it into another meeting where they want to raise things. So lately the staff are deciding not to go to morning teas.

All of the focus group participants agreed that, "developing relationships is probably the most important thing [for] a leadership team … with your staff, our kids, and the wider community." They noted that staff culture was a key area to improve because:

> We deal with relationship breakdowns between kids very, very well. We deal with relationship breakdowns between staff and students pretty well … Yet, when we're dealing with staff-staff interactions that breakdown, we tend to shy away from it and think 'they're grown up, they'll sort it out'.

Teaching Efficacy Belief Instrument

The Teaching Efficacy Belief Instrument, amended from the Science Teaching Belief Instrument (Riggs & Enochs, 1989), measured teachers' efficacy against two scales:

1. Outcome expectancy: Efficacy linked to positive student learning outcomes, and
2. Teaching efficacy: Personal efficacy about teaching in their main subject area.

The data from each of the two scales were tested for normality and reliability. Both scales showed some deviance from a normal distribution; however, the outcome expectancy scale had a more significant deviation. The outcome expectancy scale demonstrated a high level of skew ($Z_{skew} = -3.513, p < .001$), although its kurtosis was non-significant. Z scores for skew and kurtosis were also computed for the teaching efficacy scale; however, these scores were all non-significant and indicated that the distribution of the teaching efficacy scale was close to normal. The normality findings are consistent with previous research on the Science Teaching Belief Efficacy Instrument, in which the outcome expectancy scale is generally less reliable due to the highly personal responses to student learning and teaching philosophies (Bleicher, 2004; Enochs & Riggs, 1990; Enochs et al., 2000). The Cronbach's alpha coefficient was used to determine internal consistency reliability for the instrument. As anticipated, the reliability of the outcome expectancy scale was particularly low, $\alpha = .455$, which shows the disparity of teachers' responses to the items in that scale. The poor reliability could also be due to the small sample ($n < 50$). The teaching efficacy scale returned a much higher reliability, $\alpha = .749$.

As with the SOHQ, any negatively worded items (e.g., I generally teach my subject area ineffectively) were reverse coded so that a higher level score (i.e., an 'agree' or 'strongly agree' category) corresponded with higher efficacy.

Outcome Expectancy Scale

The outcome expectancy scale included seven items:

1. When a student does better than usual in my class, it is often because the teacher exerted a little extra effort;
2. If students are underachieving in my class, it is most likely due to ineffective teaching;
3. The low achievement of a student can be overcome by good teaching;
4. The low achievement standard of some students cannot generally be blamed on their teachers;
5. When a low achieving student progresses in a subject, it is usually due to extra attention given by the teacher;
6. The teacher is generally responsible for the achievement of their students, and
7. Even teachers with good content knowledge cannot help some student to learn in their subject area.

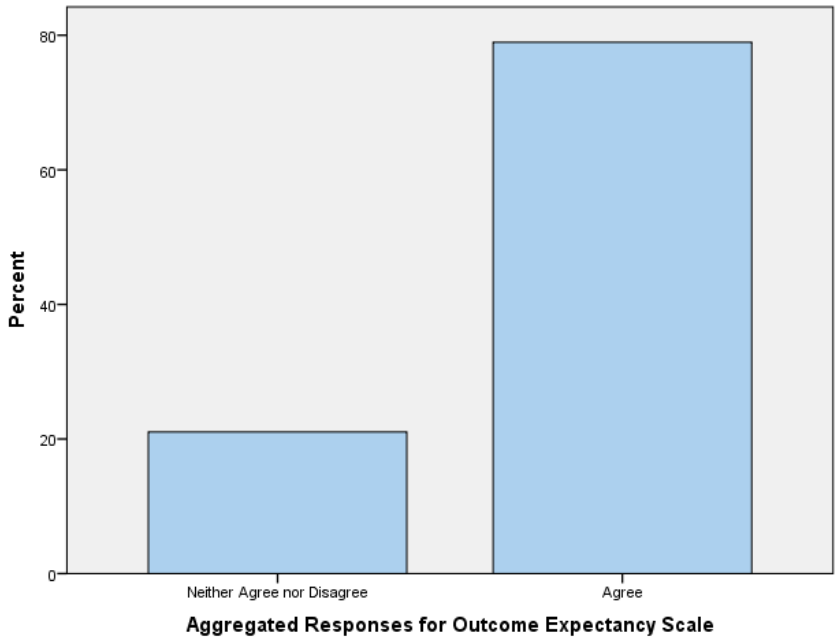

Figure 11. ***Staff aggregated responses to the items in the Outcome Expectancy scale of the Teaching Efficacy Belief Instrument.***

While the outcome expectancy scale was unreliable, the initial indication from the results suggest that teachers feel they are able to effect positive change on students' outcomes through their teaching. A total of 78.9% of teacher participants agreed with the outcome expectancy statements, while the remaining 21.1% neither agreed nor disagreed with the

statements in this scale. One explanation for the percentage of teachers selecting 'neither agree nor disagree' could be their perception of the multitude of factors that affect students' learning outcomes (e.g., family home environment, pastoral care and socio-emotional factors, which were discussed in the focus groups).

Teaching Efficacy Scale

The teaching efficacy scale included seven items:

1. Even if I try very hard, I do not teach my subject as well as other teachers;
2. I generally teach my subject area ineffectively;
3. I understand my subject area content knowledge well enough to be effective in teaching it;
4. I find it difficult to explain to students how concepts in my subject area work;
5. I wonder if I have the necessary skills to teach my subject area;
6. When a student has difficulty understanding a concept, I am usually at a loss as to how to help them, and
7. I do not know what to do to motivate students in my subject area.

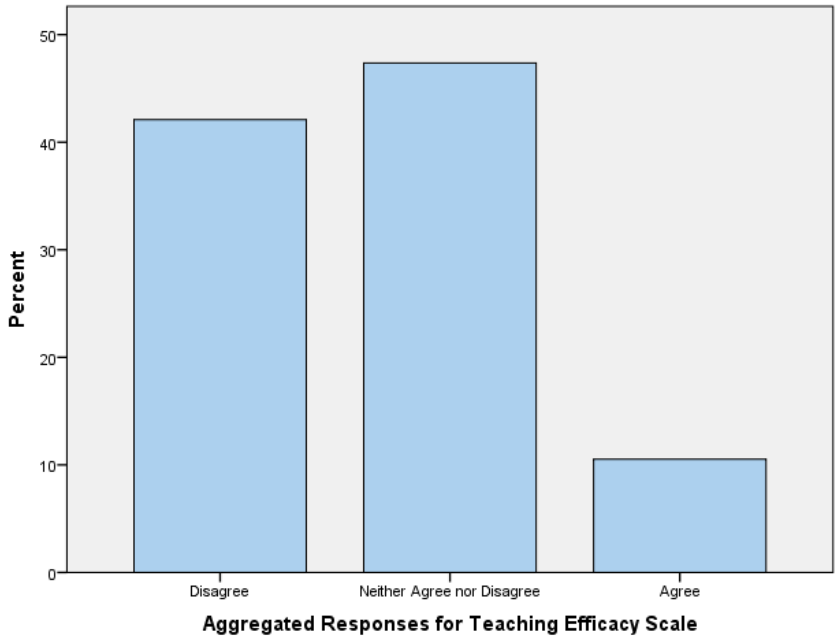

Figure 12. ***Staff aggregated responses to the items in the Teaching Efficacy scale of the Teaching Efficacy Belief Instrument.***

Although this scale was also reverse coded, the original graph has been included as it more clearly corresponds with the statements included in the teaching efficacy scale of the questionnaire (i.e., the percentage of 'disagree' implies positive teaching efficacy, as the

statements were mostly negatively worded). The 42.1% of teachers who disagreed with the statements shows a high level of teacher efficacy, or the teachers' belief that they have the necessary skills and knowledge to effectively teach in their subject area. The remaining teachers, who selected 'neither agree nor disagree' (47.4%) or 'agree' (10.5%), have a lower personal teaching efficacy. Explanations for their lower efficacy could include teaching outside of their subject area or limited opportunities to receive feedback about their teaching, as indicated in the focus groups.

The correlation between teacher efficacy and school culture will be a key area within the Phase Two report, after the implementation of any changes, as the re-testing of the teachers will result in higher reliability and the capacity to make more valid judgements about the effect of school culture on efficacy.

Conclusions and Recommendations

Overall, analysis of the School Organisational Health Questionnaire (Hart et al., 2000) suggested that the Kinross College participants are pleased with the level of curriculum coordination across the school, and with their current workload expectations. Many of the participants also felt that their goals were congruent with those of the school, although the focus group interviews determined that when morale is low, staff commitment to the school's goals also decreases. The Teaching Efficacy Belief Instrument (Riggs & Enochs, 1989) indicated that approximately half of the participating teachers' efficacy within their main learning area was high, while the remaining staff participants were less optimistic about their teaching practice.

Key areas for improvement based on the questionnaires are:

1. Morale;
2. Appraisal and recognition;
3. Participative decision making;
4. Professional growth, and
5. Supportive leadership.

The path diagram from the confirmatory factor analysis also suggested that decision making is a key area that could effect change, as it was highly correlated with morale, goal congruence and supportive leadership factors. Furthermore, decision making had the biggest effect on the participants' response to the appraisal and recognition scale.

Subsequently, we make the following recommendations:

1. It would be desirable for there to be increased visibility of the executive team in the school: for example, at assemblies and social functions.
2. There is support for the re-establishment of an active social committee, which could improve the staff morale. We would suggest that the social committee organise diverse activities so that all staff could participate in these events: for example, family friendly events as well as staff only functions.
3. There is a need for the revision and documentation of procedures around decision making at the school. We suggest a revised handbook that includes a clear process around participative decision making and role clarity (particularly for student services and leadership positions). This document should be frequently revised so that all information is up-to-date, and all staff have a copy of the school's procedures.

It should be noted that these conclusions and recommendations represent the beginning of this project. These recommendations form the basis of Phase Two of the research project, to enhance school culture through increased interpersonal engagement.

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Appendix A: Glossary of Statistical Terms and Symbols

Term/Symbol	Definition
Cronbach's alpha coefficient (α)	A measure of the internal consistency of a measurement scale (Cronbach, 1951). This coefficient tells the researcher how closely the items (statements) in the scale are related.
Comparative Fit Index (CFI)	A measure of the goodness-of-fit of a model based on the known population parameters (Bentler, 1990). The CFI is designed to take small samples into consideration when fitting the structural model (Bentler, 1990). The closer the value is to 1, the better the fit of the proposed model (Hu & Bentler, 1999).
Delta (*d)*	The variance of each factor in the model, that is, the random error parameter for the measurement (Rungie, Coote, & Louviere, 2011).
Kurtosis ($Z_{kurtosis}$)	A measure of the degree to which scores cluster at the tails of a normal (bell curve) distribution model. A positive kurtosis has many scores in the tails, while a negative kurtosis has too few to show a normal distribution (DeCarlo, 1997).
Normed chi square distribution ($_{\chi}^{2}/df$)	A measurement of fit where the chi-square (goodness-of-fit measurement) is divided by the degrees of freedom in the model. Scores between 1 and 3 indicate a good fit (Sun, 2005).
Number (*n*)	The number of participants in a sample.
Regression weight	The estimated correlation between two variables in the model, showing the dependence relationship in the structural model created (Gefen, Straub, & Boudreau, 2000).
Root Mean Square Error of Approximation (RMSEA)	A measure of the 'badness'-of-fit of a model, through estimating the error of the proposed model. A RMSEA score of less than 0.08 indicates a good model fit (Browne & Cudeck, 1993). RMSEA is a less preferable measurement with a small sample size (Hu & Bentler, 1998).
Skew (Z_{skew})	A measure of the symmetry of distribution of a sample, where a large positive score indicates more scores toward the lower end of the tail, and a large negative score indicates more scores toward the higher end of the distribution (Arellano-Valle, del Pino, & San Martin, 2002).

Term/Symbol	Definition
Significance level (*p*)	A measurement of change between the actual sample and the hypothesis model, resulting in the determination that the factors measured are causing an effect on the sample. A *p* value closer to 0 indicates a statistically strong relationship.
Tucker-Lewis Coefficient (TLI)	A measurement of the goodness-of-fit for a proposed model, where the proposed model is measured against a baseline model that assumes the variables are uncorrelated (Sugawara & MacCallum, 1993). The closer the value is to 1, the better the fit of the proposed model (Hu & Bentler, 1999).
Z scores	A standardised score as expressed by its standard deviation, so that the new scores create a normal (bell curve) distribution with a mean of 1 and a standard deviation of 0.